

Amendments to Claims

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
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25. (Cancelled)
26. (Cancelled)
27. (Cancelled)
28. (Cancelled)
29. (Cancelled)
30. (Cancelled)
31. (Currently Amended) An apparatus for forming a relief pattern from a photosensitive element containing a composition layer having an exterior surface and capable of being partially liquefied, comprising:

means for supplying an absorbent material to the exterior surface of the composition layer;

means for supporting the photosensitive element, wherein at least one of the means for supplying and the means for supporting are movable relative to the other;

means for contacting the photosensitive element with the absorbent material at a nip to allow at least a portion of the liquefied material of the composition layer to be absorbed by the absorbent material;

means for heating the exterior surface of the composition layer to a temperature T_r sufficient to cause a portion of the layer to liquefy and cause one or more components in the layer to form a vapor; and

~~means~~ a collection member for collecting the vapor placed at the means for supplying or adjacent the nip where the exterior surface of the composition layer contacts the absorbent material.

32. (Cancelled)

33. (Currently Amended) The apparatus of Claim ~~32~~ 31 further comprising means for separating the photosensitive element from the absorbent material.

34. (Currently Amended) The apparatus of Claim ~~32~~ 31 wherein the means for supplying comprises a roller mounted for rotation in a first frame portion.

35. (Currently Amended) The apparatus of Claim ~~32~~ 31 wherein the means for supporting comprises a drum mounted for rotation in a second frame portion, the drum having an outer circumferential surface adapted to support the photosensitive element.

36. (Currently Amended) The apparatus of Claim ~~32~~ 31 wherein the means for heating is selected from the group consisting of:

a first heating means for applying heat to the exterior surface of the composition layer adjacent where the absorbent material contacts the layer, the first heating means adapted to heat the exterior surface of the layer to temperature T_1 ;

a second heating means for heating the supplying means to a temperature capable of heating the exterior surface of the composition layer to a temperature T_2 while the absorbent material is contacting the exterior surface of the layer;

a third heating means for heating the supporting means to a temperature capable of heating the exterior surface of the composition layer to a temperature T_3 ;

a combination of the first heating means and the second heating means;

a combination of the first heating means and the third heating means;

a combination of the second heating means and third heating means; and

a combination of the first heating means, the second heating means, and the third heating means.

37. (Original) The apparatus of Claim 31 further comprising means for confining the vapor.

38. (Original) The apparatus of Claim 31 further comprising means for managing removal of the vapor.

39. (Original) The apparatus of Claim 38 wherein the means for managing comprises means for exhausting the vapor.

40. (Original) The apparatus of Claim 39 wherein the means for exhausting the vapor is an external exhaust collection system.

41. (Currently Amended) The apparatus of Claim ~~39~~ 38 wherein the means for managing further comprises means for maintaining a non-recirculating flow of the vapor.

42. (Currently Amended) The apparatus of Claim ~~39~~ 38 wherein the means for managing further comprises means for maintaining the vapor at a temperature sufficient to keep the vapor in its vaporized state for removal.

43. (Original) The apparatus of Claim 38 wherein the means for managing further comprises means for cooling the vapor to a temperature sufficient to condense one or more of the components.

44. (Cancelled)

45. (Previously Presented) The apparatus of Claim 31, wherein all or a portion of the vapor forms condensate, further comprising means for confining the vapor and the condensate.

46. (Previously Presented) The apparatus of Claim 31, wherein all or a portion of the vapor forms condensate, further comprising means for managing removal of the vapor and the condensate.

47. (Original) The apparatus of Claim 45 wherein the managing means further comprises means for separating the vapor from the condensate.

48. (Previously Presented) The apparatus of Claim 31, wherein all or a portion of the vapor forms condensate, further comprising means for collecting the condensate.

49. (Previously Presented) The apparatus of Claim 31, wherein all or a portion of the vapor forms condensate, comprising means for delivering the condensate to the absorbent material.

50. (Previously Presented) The apparatus of Claim 31, wherein all or a portion of the vapor forms condensate, comprising means for delivering the condensate to a condensate absorbent material.

51. (Previously Presented) The apparatus of Claim 31, wherein all or a portion of the vapor forms condensate, further comprising means for exposing the condensate to actinic radiation.

52. (Original) The apparatus of Claim 46 further comprising means for exhausting the vapor.

53. (Original) The apparatus of Claim 52 further comprising means for maintaining a nonrecirculating flow of the vapor.

54. (Original) The apparatus of Claim 52 wherein the means for exhausting the vapor comprises one or more parts composed of a condensate absorbent material.

55. (Original) The apparatus of Claim 46 wherein the means for managing further comprises means for transporting the vapor through a condensate absorbent material.

56. (Original) The apparatus of Claim 31 wherein the heating means is a heating station.

57. (Original) The apparatus of Claim 31 wherein the means for collecting the vapor is a manifold.

58. (Original) The apparatus of Claim 31 further comprising means for exhausting the vapor collected by the collecting means.

59. (Original) The apparatus of Claim 31 further comprising means for shrouding the vapor at or adjacent the heating means.

60. (Original) The apparatus of Claim 31 wherein the means for heating generates heated air, the apparatus further comprising means for removing the heated air.

61. (Original) The apparatus of Claim 31 wherein the means for heating generates heat, the apparatus further comprising controlling the heat.

62. (Previously Presented) The apparatus of Claim 31 further comprising means for supplying air at the means for collecting.

63. (Previously Presented) The apparatus of Claim 31 further comprising means for directing the vapor to the means for collecting.

64. (Previously Presented) The apparatus of Claim 62 wherein the means for supplying air is from a source of pressurized air.

65. (Previously Presented) The apparatus of Claim 62 wherein the means for supplying air is from air exhausted from the apparatus.

66. (Previously Presented) The apparatus of Claim 38 wherein the means for managing removal of the vapor comprises a separation unit.

67. (Previously Presented) The apparatus of Claim 66 wherein the separation unit comprises a coalescing unit that coalesces the vapor to form condensate.

68. (Previously Presented) The apparatus of Claim 66 wherein the separation unit comprises an impingement surface to induce formation of droplets of the vapor.

69. (Previously Presented) The apparatus of Claim 66 wherein the separation unit comprises a separation chamber to separate the vapor from condensate formed from the vapor.

70. (Previously Presented) The apparatus of Claim 69 wherein the separation chamber contains media for filtering the condensate.

71. (Previously Presented) The apparatus of Claim 69 wherein the separation chamber contains media for collecting the condensate and draining the condensate in the chamber.

72. (Previously Presented) The apparatus of Claim 38 wherein the means for managing removal of the vapor comprises a cyclone separator.

73. (Previously Presented) The apparatus of Claim 38 wherein the means for managing removal of the vapor comprises a coalescing filter cartridge array.

74. (Cancelled)

75. (Previously Presented) An apparatus for forming a relief pattern from a photosensitive element containing a composition layer having an exterior surface and capable of being partially liquefied, comprising:

means for heating the exterior surface of the composition layer to a temperature sufficient to cause a portion of the layer to liquefy and cause one or more components in the layer to form a vapor in air;

means for collecting the vapor at or adjacent the heating means; and

a separation unit for removing the collected vapor and/or the collected vapor that condenses to form condensate from the air.

76. (Previously Presented) An apparatus for forming a relief pattern from a photosensitive element containing a composition layer having an exterior surface and capable of being partially liquefied, comprising:

means for heating the exterior surface of the composition layer to a temperature sufficient to cause a portion of the layer to liquefy and cause one or more components in the layer to form a vapor;

means for collecting the vapor at or adjacent the heating means; and

means for confining the collected vapor and the collected vapor that condenses to form condensate, connected to the collecting means and oriented vertically or substantially vertically so that the condensate flows under gravity for removal from the apparatus.

77. (Previously Presented) An apparatus for forming a relief pattern from a photosensitive element containing a composition layer having an exterior surface and capable of being partially liquefied, comprising:

means for heating the exterior surface of the composition layer to a temperature sufficient to cause a portion of the layer to liquefy and cause one or more components in the layer to form a vapor;

means for collecting the vapor at or adjacent the heating means;

means for maintaining the collected vapor in its vaporized state; and

means for managing removal of the collected vapor through a filter.